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ELECTRIC LIGHT & POWER

EL&P

VOICE OF THE ELECTRIC UTILITY INDUSTRY

# Ice storms darken Southwest utilities

## *'Worst in 50 years;' 9-day outages; crews from 6 states assist*

Mark T. Hoske
Assistant Editor

A Dec. 25-26 ice storm felled trees and damaged lines from south central Oklahoma to southeastern Missouri causing week-long power outages for tens of thousands of customers and still untotalled millions of dollars in damage.

As of press time, not all figures were available, but utility and regulatory personnel in the region agree that it was the worst ice storm they've seen...ever. While damages were estimated to be enormous, no injuries were reported.

Officials praised the dedication of crews, many of whom worked through two holidays. Commradery prevailed as crews from six states assisted.

Here are samples of outages, repairs and conditions encountered from some of the affected utilities.

Work crews chip away at 2 inches of ice to repair a portion of an estimated $4.5 million in damage to Public Service of Oklahoma's system. The Dec. 25-26 storm caused up to 114,000 PSO customers to lose power during the nine-day ordeal. Cleanup continues in four states.

### PS of Oklahoma

Public Service of Oklahoma, based in Tulsa, OK, may have suffered the worst damage with estimates approaching $4.5 million. The around-the-clock effort to restore Tulsa's power cost at least $3 million.

Cumulatively, about 114,000 Tulsa customers lost power during the crisis. One week after the storm began, PSO had restored 90 percent of its service, but some customers were still without power nine days after the storm hit.

At the peak, as many as 67 feeder lines, of 225, were interrupted. Each serves 800 to 1000 customers.

### Nearly everyone helped

Eighty line and service crews and 90 tree trimming crews, totalling 773 workers, worked on PSO's outage. Help came from Kansas Gas & Electric, Kansas City Power, Arkansas Power & Light, Dallas Power & Light, Southwestern Electric Power Co., and 20 contracted companies.

PSO's Nancy Harlow said Tulsa may have been hit harder than other areas of the state because above-average rainfall over five years had promoted increased tree growth.

The ice's weight caused most of the destruction, sticking to trees for days. Wind gusts exacerbated the problem.

Harlow emphasized that PSO's annual tree trimming budget increased steadily from $2.54 million in 1984 to $3.32 million in 1986. Through November 1987, $3.2 million was spent, with a 51-percent increase for its Tulsa division alone.

"No amount of tree trimming could have prevented the damage we sustained to our system," maintained Charles Peck, the utility's

continued on page 3

## LATE NEWS

**Public Service of New Hampshire,** denied a 15-percent emergency rate hike by the state supreme court, Jan. 28 filed for protection from creditors under Chapter 11 of the federal bankruptcy code, the first such filing in nearly 50 years. PSNH owns 36.5-percent of the $5-billion Seabrook nuclear plant. PSNH defaulted on more than $47 million in interest payments; opponents argue financial conditions should prevent Seabrook licensing. See full report in March *EL&P*.

**The U.S. Supreme Court** will decide if foreign uranium can be used for U.S. power generation. DOE refused to comply with a law requiring it to restrict foreign uranium-use after it found the U.S. uranium industry "not viable." The U.S.-Canada Trade Treaty would exempt Canada, the largest foreign uranium supplier to the U.S.

**Pacific Gas & Electric** has withdrawn its proposal to acquire Sacramento Municipal Utility District.

# DOE to pay TVA $1.8 billion to settle generation dispute

WASHINGTON—The U.S. Department of Energy agreed to pay the Tennessee Valley Authority $1.791 billion over the next seven years to settle a contractual dispute over generation capacity.

The payment compensates TVA for capacity it developed at DOE's request, but which DOE now says it won't need. DOE contracted for the power in the late 1960s and 1970s in anticipation of increased demand for uranium enrichment, demand that did not occur.

### Mutually beneficial

Spokespersons for both sides said the settlement is mutually beneficial.

As a result of the settlement, TVA reduced rates by 6 percent effective Jan. 2. Mostly to compensate for lower DOE payments, TVA had increased rates by 7.8 percent amount last Oct. 2. The DOE reported a savings of $650 million over their original contractual agreement.

As reported in October's *EL&P*, during negotiations between the federal agencies, TVA had asked the DOE to pay as much as $2.5 billion between 1987 and 1995.

# *PacifiCorp, UP&L shareholders approve merger; talks run on*

PORTLAND, OR—Shareholders of PacifiCorp and those of Utah Power & Light Company have overwhelmingly approved a merger of the two companies.

But regulatory approval is still needed in seven states and on the federal level.

Chris Hunter, PacifiCorp spokesperson, said public power interests have expressed concern that the merger would inhibit the wheeling of electricity through the region's transmission lines. Hunter said both companies have dealt fairly with smaller utilities in the past and would continue to do so.

Another question up for debate, Hunter said, is how the anticipated cost savings of the merger would be divided between customers of each state and stockholders. Regulatory hearings are completed in Montana and Wyoming; decisions are anticipated by the end of February.

The two companies have said if the merger is not successful by Aug. 12, one year after the intention was announced, they may terminate the agreement.

"We're trying to keep things moving," Hunter explained.

# Nevada site chosen for tests of high-level nuclear waste

WASHINGTON—In what looks like a "not-in-my-backyard" decision, Congress agreed to test only one Nevada site for the country's first high-level nuclear depository.

Yucca Mountain, a corner of a Nevada atomic testing site, was chosen to be the probable site of the high-level radioactive waste storage facility and will be tested and studied to ensure its suitability. Other potential sites in Washington and Texas will not be tested.

### Objections from Nevada

Nevada Sen. Harry Reid called the decision, which was attached to the budget package and signed into law, "An exercise of raw politics without even a measure of fairness or objectivity."

The measure postpones the search for a second site for 20 years and nullifies selection of Tennessee for a monitored retrievable storage facility. It also reduces annual payments to Nevada from a proposed $100 million year to just $10 million a year, increasing to $20 million a year once the site receives waste.

Department of Energy sources have said construction at Yucca Mountain wouldn't begin until the late 1990s.

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# News Briefs

JILL MINNER, Assistant Editor

## Bechtel Power Corp. and PG&E plan to form joint venture

● Pacific Gas and Electric Company and Bechtel Power Corporation have announced plans to form a joint venture. The companies said their venture would work with participants in the nonutility electric generation field in developing, managing, owning and operating facilities nationwide. "We think that this venture will assist us in responding to emerging trends in the electric generating business," stated Bechtel President Cordell W. Hull. According to the companies, they will work together on a project-by-project basis until a definitive joint venture agreement is reached. A PG&E spokesperson said the companies will probably begin by looking at opportunities on the East Coast or in the Northeast where the demand for additional power is greatest.

## HIPDC awards C-E/Sulzer Bros. $115-million boiler contract

● According to Combustion Engineering, Inc. (C-E), its Power Systems Group and the Sulzer Brothers of Winterthur, Switzerland have received a contract to provide two 600-MW steam generators to Hunaneng International Power Development Corp., People's Republic of China. C-E said the contract, valued at over $115 million, represents the first application of supercritical pressure technology for steam generation in China. The company expects to begin equipment deliveries by January 1989 and has scheduled commercial operations for November 1990 and July 1991.

## Huntington named NEPOOL Executive Committee Chairman

● The New England Power Pool (NEPOOL) Executive Committee has selected Samuel Huntington as chairman. He is currently president and CEO of New England Electric System. "In the months and years ahead, New England will be facing potential power shortages that will call for some tough decisions regarding electrical supply and consumption," noted Huntington. "I am confident, however, that by coordinating their efforts through a regional power system like NEPOOL, the utilities can meet these challenges most effectively," he added. Huntington succeeds Stephen J. Sweeney as chairman. Sweeney, Chairman and CEO of Boston Edison, will continue to serve as a member of the committee. NEPOOL said its executive committee is in charge of bulk power coordination and regional energy planning policies for 95 participants.

## Burstein says nuclear energy necessary to meet future needs

● According to Sol Burstein—who guided the design and construction of Wisconsin Electric Power Company's Point Beach Nuclear Plant in the late 60s and early 70s—nuclear power offers one of the best prospects for providing the nation's future energy needs. "As needs and requirements change, our country will have to adapt," predicted Burstein, who recently retired as vice chairman of the utility. "If reason prevails we'll recognize that nuclear energy is necessary, as much of the world has. The obstacles to nuclear in this country now are not so much technical or economic, but are institutional or political," he added. In regard to the 'obstacle' of nuclear waste Burstein said, "There is no greater nonsense than how we are handling nuclear waste. We all want the benefits but none of the costs associated with them."

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EL&P readers whose responsibilities include both Generation and Transmission/Distribution receive both technology sections. Other readers receive the technology section that applies to their respective area of responsibility. The Generation edition is indicated by a single dot (●) in the upper right corner of page 1; the T/D edition carries two dots (●●). All readers receive EL&P's industry news section.

## Outplacement consulting firm predicts major utility layoffs

● In its annual forecast, Lee Hecht Harrison, Inc. predicts that many utility companies will be involved in major layoffs, due to the completion of a large number of long-term projects. Cutbacks of middle and senior-level management in all industries will increase this year, but at a slower rate than in 1987, according to the outplacement consulting firm. Lee Hecht Harrison said the forecast was conducted from an informal survey of human resources managers and other executives, and is based on overall trends observed prior to recent stock market uncertainty.

## Electric utilities' demand for coal to rise in '88: NCA forecast

**Electric Utilities**
**Percent Generation By Fuel**

| | Coal | Oil/Gas | Nuclear | Hydro/Other | Electricity Growth Rate |
|---|---|---|---|---|---|
| 1985 | 56.8 | 15.9 | 15.5 | 11.8 | 2.2 |
| 1986 | 55.7 | 15.5 | 16.6 | 12.2 | 0.7 |
| 1987 (1) | 56.0 | 15.2 | 18.0 | 10.8 | 3.5 |
| 1988 (2) | 55.0 | 14.4 | 18.8 | 11.8 | 2.0 |

1) Preliminary
2) Forecast

Source: The National Coal Association

● The National Coal Association (NCA) said it expects electric utilities to demand 715 million tons of coal in 1988, slightly higher than 1987's record forecast of 714 million tons. In addition, electrical generation—affected by slower economic growth and a reduced level of industrial activity—will rise 2.0 percent this year, assuming normal weather patterns. NCA predicts that coal's share of the generation market will decline from 56 percent in 1987 to 55 percent, and nuclear's share will increase to 18.8 percent (see table).

## Low-power license approved for ComEd's Braidwood Unit 2

● The Nuclear Regulatory Commission has issued a low-power operating license to Commonwealth Edison for Unit 2 of its Braidwood generating station. Edison said it will now begin an extensive testing program, gradually increasing power levels to five percent of rated capacity. The company expects Unit 2 to be in service by mid-1988. According to Edison, the completion of Braidwood marks the end of the utility's construction program which began in the early 1970s. "...the Braidwood plant has been completed at a far lower cost than any other new U.S. nuclear plant," said Edison Chairman James J. O'Connor, "While other areas of the country face a shortage of electrical capacity...our customers will have an adequate supply."

## BPA adds third element to experimental partnership program

● As part of a partnership program, the Bonneville Power Administration (BPA) said it will offer assistance to new and expanding industries if they adopt state-of-the-art energy saving technologies. According to BPA, the purpose of its program is to assist its customers in marketing surplus power within the Pacific Northwest and to stabilize BPA revenues. The existing two parts of the program include: 1) supporting the use of electricity in place of wood heating through a short-term rate discount; and 2) offering assistance in designing energy savings into new commercial buildings.

## EUA buys over 50% in common shares of NECO Enterprises

● Eastern Utilities Associates (EUA) has signed an agreement with David F. LaRoche to purchase approximately 52 percent in common shares of NECO Enterprises, Inc. EUA said it will seek to acquire all other common shares of NECO—parent company of Newport Electric Corporation. The transaction is currently pending approval of the EUA Board of Trustees and the Securities and Exchange Commission.

## SERI continuing education program brings faculty to worksite

● System Energy Resources Inc. (SERI) recently honored the first graduate of its continuing education program at Grand Gulf nuclear station. SERI said its program, which began at Grand Gulf in September 1985, is unique in the nuclear industry because it brings college faculty to the job site and works class time around the normal shifts of employees. Drew Bottemiller, a supervisor in SERI's Training Department, was the first to receive a bachelor of science degree in nuclear engineering technology through the program. "The pace of technological and regulatory changes in the nuclear industry calls for a better educated work force, more than ever before," noted Oliver Kingsley, vice president-nuclear operations at SERI. "This program was the best and only way we could provide a fully accredited engineering degree to all our employees," he added. The utility said classes are taught for 12 weeks on a quarter system and that coursework includes general education, mathematics, nuclear reactor fundamentals and advanced nuclear technology.

## GPU appoints Kuhns chairman and chief executive officer

● General Public Utilities Corporation (GPU) has announced the appointment of William G. Kuhns as chairman and chief executive officer. He succeeds John F. O'Leary who died of cancer in December. Kuhns previously served as chairman and CEO at GPU before he retired in May 1987.

# Editorial

## U.S. apparatus suppliers merit international trade equality

If the American economy is to grow and prosper, something must be done to reduce the mounting balance of international payments deficit. To this end, U.S. manufacturers and producers must improve on past performances in the international marketplace. But if this is going to happen, substantive changes in the rules by which we and our trading partners compete must occur.

This is no remote economic theory. It is a matter of potential life-threatening illness or health for some groups of U.S manufacturers, with domestic producers of heavy electrical equipment right up there at or near the top of the list of those needing relief. When manufacturers of electrical apparatus face serious problems, then utilities also face future uncertainties with regard to equipment availability—something that cannot be tolerated for long.

The problem for U.S. electrical equipment manufacturers is simply that while many foreign markets are effectively foreclosed to them by virtue of both tariff and non-tariff barriers, foreign electrical manufacturers from those protected nations are free to sell in the U.S. Moreover, in some cases, offshore suppliers are given subsidies or other incentives from their governments that allow them to reduce prices to levels below those of American manufacturers or even to less than in their own domestic market.

Over the years, negotiators at General Agreement on Tariffs and Trade (GATT) meetings have considered the problem. Going back to the Kennedy Round of GATT negotiations in the '60s, there was a strong thrust by American negotiators to obtain reductions in tariffs. In the 1979 Tokyo Round, further reductions in tariffs were sought, and elimination (or at least reduction) of non-tariff barriers were sought.

Unfortunately, utility equipment somehow was largely bypassed in the discussions. As one Commerce Department staffer told *EL&P* awhile back, "Face it, electrical equipment was trade bait, and was sacrificed for more important classes of products," like agricultural goods, among others.

So protectionalism continues to exist in many markets around the globe, while foreign equipment suppliers are enjoying a largely free pass to cultivate customers in the U.S. American apparatus manaufacturers simply cannot sell in many developed offshore markets and free competition in non-developed nations has been reduced by virtue of subsidies offered by some offshore manufacturers. And at home U.S. apparatus producers face increasing competition for utility business from foreign suppliers manufacturing offshore. It's not surprising so many have sought, or at least accepted "help" in the form of various types of partnerships with foreign manufacturers.

Congress recognized the inequality of competition for electric utility products some years back by passing the Buy American Act, which prevented government agencies, such as TVA and BPA (among others), from buying foreign equipment unless it was priced at least 6 percent below the lowest bid from a U.S. supplier. For fiscal 1986, Congress raised the differential to 25 percent and for fiscal 1987 to 30 percent. But this applies only to government power agencies and only to extra-high-voltage equipment.

Contracting Parties to GATT in late-1986 agreed to a new round of negotiations, the Uraguay Round, covering another broad range of international trade concerns. The Reagan Administration endorses the agreement and has expressed hopes of getting relief for U.S. electrical manufacturers.

Leveling out the playing field in the competition for world markets for electrical apparatus could go a long way toward restoring vitality to the electrical equipment manufacturing industry after a long, hard uphill battle. It would contribute to our economic recovery against foreign currencies and to domestic security.

The National Electrical Manufacturers Association is working hard to promote the interests of its electrical equipment manufacturing members. But to ensure that the security and health of the U.S. electrical apparatus industry isn't traded away—again, additional support is needed. To our thinking, such support, from EEI, NRECA, APPA and other energy industry organizations, as well as individual utilities and electricity suppliers, could go a long way toward convincing members of Congress to exert pressure to uphold the interests of our domestic equipment manufacturers.

We're writing our representatives in Congress. We hope you, our readers will add your voices also.

*Robert A. Lincicome, Editor*

# Thanks, Duke!

He has been described as the wide-eyed spark plug of this industry, the little bull that brings his own china shop with him, the man with a "Stetson" grin that immediately puts you at ease.

After 27 years with our magazines, and a total 36 years overall in the power generation/electric utility industry, Robert J. "Duke" Kiesel has retired from his position as group publisher of *Electric Light & Power* and *Power Engineering* magazines.

A graduate of Purdue University, Duke spent 9 years of service with Westinghouse prior to joining *Power Engineering* in 1960 as district sales manager in Pittsburgh. In 1973 he was promoted to sales manager of *Power Engineering* and became publisher in 1975. Technical Publishing Company acquired *Electic Light & Power* in 1977 and Duke became Group Publisher of both magazines at that time. In 1982 Technical Publishing, then a company of the Dun & Bradstreet Corporation, elected him Vice President.

Many of you have met Duke through his participation in various industry organization meetings, including the American Power Conference, American Boiler Manufacturers Association, Edison Electric Institute, Electric Utility Fleet Managers Conference, Southeast Electric Excahange, Utility Purchasing Management Group, Valve Manufacturers Association and others. You know not only his humor, but also his genuine interest and concern for this great industry. We will long appreciate his support and his determined effort to promote the electric utility market.

As for me, I'm Art Rice, previously sales manager and, more recently, associate publisher of *Electric Light & Power* and *Power Engineering*. I look forward to working with all of you...and to continuing our magazines' strong commitment to, and involvement in, this dynamic industry.

Much can be said, but a sincere "Thank you, Duke" says it all and says it best.

*Arthur L. Rice, Publisher*

# Letters

### Operating record

In a recent issue of *Electric Light & Power*, you heralded Appalachian Power Company's Mountaineer Plant for setting a world's record for a major steam- electric generating unit running consecutive days. I respectfully submit that this tremendous accomplishment is not truly a world's record.

Commonwealth Edison Co. of Indiana's State Line Unit 1 ran continuously from 8:58 pm December 19, 1929, until 11:13 p.m. June 30, 1952. During this time it generated 26,794,684,288 kWh and burned over 16-million tons of coal before it experienced its first total shutdown.

Unit 1 was rated at 208 MW and used six Babcock & Wilcox pulverized coal stream boilers and a General Electric turbine-generator consisting of two low-pressure and one high-pressure elements, which could operate in a variety of combinations, to achieve this record run. This design permitted individual boiler or turbine elements to be maintained while the others operated.

State Line Unit 1 was retired from service in 1977 and in the same year was designated an ASME National Historic Mechanical Engineering Landmark. For 25 years it was the largest steam-turbine generating unit in the world.

We do not wish to take away any recognition of the excellent performance demonstrated by Mountaineer, but we are equally proud of our Unit 1's record.

*John T. Long, Plant Manager*
*State Line Generating Station*
*Commonwealth Edison Company of Indiana*
*Hammond, IN*

*If our calculations are right, State Line Unit 1 ran for 8,229 days, 2 hours and 15 minutes from startup to first complete shutdown (Including extra days in Leap Years). That's an accomplishment and record that may never be topped!*

### Clinton startup

It is difficult to understand why a utility magazine must take an unwarranted adversarial shot at a member of its own industry. The lead headline and article in your December issue (p.1) on our Clinton nuclear plant had all the negative connotation of a Jane Fonda movie.

It is important to remember that we did finish the plant in less time and for less money than the industry average.

Our startup and testing schedule were completed without a hitch.

Many of your advertisers and oth-

Continued on page 11


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